

Remarks:

Applicant notes the Examiner's objection to the drawings of the present application, which is predicated on the subject matter found in claims 7 and 13. Applicant has cancelled claims 7 and 13 from the present application, thereby obviating any need for any correction to the drawings. The objection to the existing drawings should be withdrawn.

Applicant notes the Examiner's indication of allowable subject matter existing in original claims 19 and 20. The subject matter of original claim 19 has been added to claim 16, and claim 19 has been cancelled from the application. As such, claim 16 is allowable at least for the reasons set forth in paragraph 39 of the Official Action. While original claim 19 was dependent from claim 18, applicant believes that the subject matter of claim 18 is unnecessary to define the invention consistent with the Examiner's reasons set forth in paragraph 39 of the Official Action. While the Examiner has objected to claim 20 as being dependent from a rejected claim, original claim 20 is an independent claim that defines the invention as set forth in paragraph 39 of the Official Action. Original claim 20 should therefore be allowed along with amended claim 16. Claims 17 and 18 now depend from a claim indicated to be allowable and should therefore also be allowed.

Applicant also note the rejection of claims 1 and 9 on the basis of the prior art. In response, applicant has amended claims 1 and 9 to better define the invention over that prior art. Specifically, claim 1 has been amended to require the outer margin of the bristles forming the filter include a plurality of portions defining a first selected radius of the filter element at least as large as an expected interior dimension of the waste water discharge system, with at least two of the plurality of portions being separated by an intermediate portion located for alignment with an expected location of an outlet of the waste water discharge system wherein the bristles terminate short of the first selected radius.

Similarly, claim 9 has been amended to require the outer margin of the bristles include an indentation located for alignment with the laterally extending outlet of the waste water discharge channel. This feature is not disclosed or suggested by the prior art. Some additional housekeeping amendments have been made to claims 9, and the claims dependent therefrom, to deal with the antecedent issue raised by the Examiner in paragraph 19 of the Official Action.

Turning to the applied art of record, Kozerski, U.S. Patent 2,690,569 discloses a filtering device consisting of a two-layer spiral structure formed of a twisted wire core brush member that is connected to a disc B perforated by apertures 19 that allow for a flow of water through the spiral structure. The bristles forming brush member are shown to be shorter in the spiral portion and slightly longer in portion 18 that is said to be provided to prevent excessive side to side movement of the filtering device with respect to the drain. Excessive movement would allow unfiltered water to enter the drain around the outer edge of the rubber grommet C, which surrounds the disk B. The bristles of portion 18 do not extend outward to the edge of apertures 19. They simply extend out far enough to prevent an exposure of any portion of the drain around the outer edge of the rubber grommet C. Thus, none of the bristles of the Kozerski filtering device extend outward from a substantially linear axial support to an outer margin at least as large as the expected interior dimension of the waste water discharge system as required by claim 1. Kozerski does not provide any intermediate portion where the bristles terminate short of the expected interior dimension of the waste water discharge system as required by claim 1 as the shorter bristled portion of Kozerski is confined to the spiral wound portion.

Gueret, published U.S. Application 2003/0084913 is not prior art as the filing date of the present application is prior to the U.S. filing date of this cited document. Further

discussion of this document is therefore unnecessary in relation to the patentability of the claimed invention of the present application.

Gilbert, U.S. Patent 877,324 disclosed a pipe cleaner for cleaning out the stems of tobacco pipes of various diameter. The pipe cleaner of Gilbert has a substantially linear twisted wire core 2 holding radially extending fibers of varying length defining an outer margin that is shown in Figure 1 to define a series of conical tufts 3. Two other outer margin patterns are shown in Figures 2 and 3. In use, the pipe cleaners of Gilbert are either pushed or drawn through the pipe stem (page 1, lines 43-45). The pipe cleaners of Gilbert are not disclosed to reside in the pipe stem to provide any filtering function.

The proposed substitution of the pipe cleaners of Gilbert for the bristle filter element of Kozerski might result in portions 11 and 18 of the Kozerski bristles to be of varying length. However, applicant questions whether the prior art, and not simply the applicant's disclosure, suggests to construct portion 18 of Gilbert in the substituted pipe cleaner shape so that it would extend outward from a substantially linear axial support to an outer margin at least as large as the expected interior dimension of the waste water discharge system as required by claim 1. Additionally, there is no suggestion in either reference to have the outer margin of the bristles include an indentation located for alignment with an expected location of a lateral outlet of the waste water discharge system as required by claims 1 and 9. Applicant therefore respectfully requests reconsideration of the basis for the rejection of claims 1 and 9, particularly in view of the amendments made to said claims as the invention now claimed would not have been obvious to one of ordinary skill in the art based on any proper combination of the applicable cited references.

Russell, U.S. Patent 5,423,621 discloses a garbage disposal cleaning device that includes a substantially linear axial shaft 22, including a radially extending handle 28.

Bristles 46 extend radially outward from the axial shaft 22 to an outer margin of various patterns shown in Figures 5 and 6. The bristles 46 are surrounded by a splatter-guard 24 that in use seals off the drain 44 from the outside environment. (Column 4 lines 63-65) The assumption that the apparatus of Russell is "capable of use as a filter in a waste water discharge system" is therefore respectfully traversed as the seal provided by the splatter-guard 24 would prevent any filtering of any water by the bristles 46. The basis for any combination of Russell with Kozerski, or any other art of record, is rendered at least questionable by this erroneous assumption. Applicant therefore respectfully requests reconsideration of the basis for the rejection of claim 4, particularly in view of the amendments made to claim 1 as the invention now claimed would not have been obvious to one of ordinary skill in the art based on any proper combination the applicable cited references.

Woods et al published Application 2003/0088933 is not prior art as the filing date of the present application is approximately one month subsequent to the U.S. filing date of this cited document, and the applicant's invention was made well before the filing date of this cited document. The basis for any combination of Woods et al with Kozerski or any other art of record is therefore respectfully traversed. Applicant requests reconsideration of the basis for the rejection of claim 5, further in view of the amendments made to claim 1 as the invention now claimed would not have been obvious to one of ordinary skill in the art based on any proper combination the applicable cited references.

Pullman U.S. Patent 1,935,128 discloses a strainer for use in a drain pipe or waste pipe 1. The strainer includes a stem 5 fashioned of twisted wires. A portion of the stem is formed as a spiral core 7 that coils around the axial center of the pipe 1 and is spaced from the wall of the pipe. The spiral core 7 holds a spiral ribbon 8 of bristles material

that extends outward to frictionally engage the inner wall of the pipe 1 along a pair of spiral lines extending down the pipe. The bristles of Pullman do not define a substantially continuous surface generally symmetric about a substantially linear axial support as required by claim 9. Further, the outer margin of the bristles of Pullman does not include an indentation located for alignment with the laterally extending outlet of the waste water discharge channel as required by claim 9. Pullman requires the presence of a spiral passage through the trap that permits flow of water. (Page 2, lines 13-20)

Zoeller et al U.S. Patent 6,136,190 discloses a filtering system for treating waste water exiting a septic tank, which is the principal intended use of the filters of the present application, that includes a vertical channel 24, 29, 30 having an inlet at a lower end of portion 30 and a laterally extending outlet 26. Zoeller discloses a complicated two stage filter 12 and 14 to be inserted within the vertical channel 24, 29, 30. Zoeller does not disclose or suggest the use of any bristle construction in a filter.

It has been proposed that it would have been obvious to one of ordinary skill in the art to substitute the strainer trap of Pullman for Zoeller's two stage filter 12, 14 in the vertical channel 24, 29, 30, which applicant does not contest. It has been further proposed that it would have been obvious to modify the strainer trap of Pullman to adopt the appearance of Gilbert, which applicant respectfully traverses. Pullman specifically requires the presence of a spiral channel through the strainer trap to allow for sufficient flow, but the adoption of the bristle pattern of Gilbert would not allow for such a channel. Further, Gilbert was motivated to adopt its specific patterns and shapes to allow for sufficient abrasive contact as the bristled structure was pushed or drawn through the pipe in question. There is no suggestion in Gilbert that the bristled structure should be disposed in the pipe as a filter element. Additionally, a substitution of a combination of


Gilbert with Pullman in the vertical channel of Zoeller would not ensure the presence of an outer margin of the bristles including an indentation located for alignment with the laterally extending outlet of the waste water discharge channel as required by claim 9. The Zoeller filters 12, 14 both appear to have vertically uniform cross-sections as does the filter of Weems, Sr U.S. Patent 4,504,391. The teaching of these references would strongly suggest to one of ordinary skill in the art that the outer margin of the bristles of any filter element be vertically uniform. Pullman provides such a filter. Gilbert is not a filter. There is simply no suggestion in any of the previously discussed references to have the outer margin of the bristles of a bristle filter include an indentation located for alignment with an expected location of a lateral outlet of the waste water discharge system as required by claims 1 and 9.

All of the references cited by the Examiner in the Official Action of October 3, 2003 that have not been previously discussed are also directed to brushes - not filter elements, and have little or nothing to contribute to the issue of patentability of applicant's claims. Applicant therefore respectfully requests reconsideration of the basis for the rejection of claims 1 and 9, particularly in view of the amendments made to said claims as the invention now claimed would not have been obvious to one of ordinary skill in the art based on any proper combination the applicable cited references.

For the reasons stated previously with respect to Russell, the basis for any combination of Russell with Pullman or any other art of record is rendered at least questionable. Applicant therefore respectfully requests reconsideration of the basis for the rejection of claim 11, particularly in view of the amendments made to claim 9 as the invention now claimed would not have been obvious to one of ordinary skill in the art based on any proper combination the applicable cited references.

The remaining claims not specifically addressed by the above remarks are all dependent from one or more of the claims previously addressed, and are patentable at least on the basis of the patentability of the independent claims and any intermediate claim from which they may depend. Applicant therefore requests that upon reconsideration the present application be allowed and passed to issue. In the event there are outstanding issues needing resolution, the subscribing attorney of record would welcome a telephone conference with the Examiner.

Respectfully submitted,


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